

IN THE DRAWINGS

The attached sheets of drawings include changes to Figs. 4-6, 14B, 17 and 27. These sheets, which include Figs. 4-6, 14A, 14B, 17 and 27, replace the original sheets including Figs. 4-6, 14A, 14B, 17 and 27.

Attachment: 6 Replacement Sheets

REMARKS/ARGUMENTS

Favorable reconsideration of this application as presently amended and in light of the following discussion is respectfully requested.

Claims 1-24 and 26-52 are pending in the present application. Claims 1, 6, 14, 18, 23, 31, 33, 48 and 51 are amended and Claim 25 is canceled by the present amendment.

In the outstanding Office Action, an Information Disclosure Statement was questioned; the drawings were objected to; the title of the specification was objected to; the claims were objected to; Claims 14-17 were rejected under 35 U.S.C. §112, second paragraph; Claims 1, 3, 6, 7, 18, 23, 25, 28, 29, 33-38, 41-43, 48, and 51 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,289,234 to Asano et al. (herein “Asano”); Claims 1, 3, 4, 6, 7, 21, 23, 25, 26, 28, 31-33, 35, 41, 42, and 51 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 4,386,838 to Hirabayashi et al. (herein “Hirabayashi”); Claims 31-33, 41, and 51 were rejected under 35 U.S.C. §102(b) as anticipated by U.S. Patent 5,142,322 to Surti; Claims 2 and 24 were rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Publication 2002/0122677 to Noda et al. (herein “Noda”); Claims 8, 9, 44, and 45 were rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Patent 5,023,660 to Ebata et al. (herein “Ebata”); Claims 10-12, 46 and 47 were rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Patent 5,404,203 to Kinoshita et al. (herein “Kinoshita”); Claim 13 was rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Patent 5,950,047 to Miyabe et al. (herein “Miyabe”); Claims 14 and 15 were rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Publication 2004/0191663 to Ojima et al. (herein “Ojima”); Claim 16 was rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of Ojima and U.S. Patent 5,328,795 to Yamashiro et al. (herein “Yamashiro”); Claim 17 was rejected under 35 U.S.C. §103(a) as unpatentable over

Asano in view of Ojima and Japanese Publication 2000-172015 to Inoue et al. (herein “Inoue”); Claims 19, 20, 22, and 30 were rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Patent 4,816,877 to Keen; Claims 39 and 40 were rejected under 35 U.S.C. §103(a) as unpatentable over Asano in view of U.S. Publication 2003/004201 to Kosuge; Claims 49, 50, and 52 were rejected under 35 U.S.C. §10(a) as unpatentable over Asano in view of Keen; Claims 49, 50, and 52 were rejected under 35 U.S.C. §103(a) as unpatentable over Surti in view of Ojima; and Claims 5 and 27 were indicated as allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Applicants gratefully acknowledge the indication of allowable subject matter in Claims 5 and 27.

Regarding the assertion in the Office Action that Applicants have not filed a claim for foreign priority, Applicants respectfully note that this application is the national phase of the PCT international application No. PCT/JP2004/012445, and the “priority document request” was made at the time of filing the PCT international application, requesting the receiving office (i.e., JPO) to transmit the certified copies to the international bureau. A Notification Concerning Submission or Transmittal of Priority Document from WIPO, dated November 10, 2004, indicates that the priority documents were received by the International Bureau. A copy of that Notification is included for your convenience. Further, Applicants note that copies of the priority documents may be found in the USPTO online Image File Wrapper accessible from Public PAIR. Accordingly, Applicants respectfully request that Applicants’ claim to foreign priority be acknowledged.

In addition, with respect to the comments in the Office Action questioning the existence of an Information Disclosure Statement for references in the specification, Applicants respectfully note that an IDS including the references listed in the specification

was filed at the time of filing this national phase application, April 28, 2005. A copy of that filing is enclosed for your convenience. Accordingly, Applicants respectfully request an initialed copy of the IDS be supplied indicating consideration of those references by the Examiner.

In addition, regarding the objection to the drawings, the specification is amended at page 28 to correct an informality with regard to the label for a photoconductive layer 36, and Applicants respectfully note that the reference numeral "6A" is described in the specification at page 46, line 22. Further, Applicants note that Figure 4 is amended to correctly identify reference numeral 37f, and Figures 4-6, 14B, 17, and 27 are amended to remove reference numerals 112, 13r, 12r, 111f, 112f, 114, 12f, 27, 71e, and 109b, which are not directly related to the subject matter of the present invention and do not require any description in the specification. Accordingly, it is respectfully requested the objections to the drawings be withdrawn.

Further, with regard to the objection to the title of the specification, the title is amended to more clearly indicate the invention to which the claims are directed. Accordingly, it is respectfully requested the objection to the specification be withdrawn.

In addition, regarding the objection to the claims, Claims 6, 18, 48 and 51 are amended to correct informalities noted in the Office Action. Accordingly, it is respectfully requested the objections to the claims be withdrawn.

Regarding the rejection of Claims 14-17 under 35 U.S.C. §112, second paragraph, Claim 14 is amended to more clearly indicate that the toner is not itself part of the invention. However, the developing unit in the process cartridge is configured to use a particular type of toner, and therefore, the developing unit and the configuration thereof is part of the present invention. Accordingly, Applicants respectfully request the rejection under 35 U.S.C. §112, second paragraph, be withdrawn.

In addition, Applicants respectfully traverse the rejection of Claims 1, 3, 6, 7, 28, 23, 25, 28, 29, 33-38, 41-43, 48, and 51 under 35 U.S.C. §102(b) as anticipated by Asano, with respect to amended independent Claims 1, 23, and 33.

Claim 1 is directed to a process cartridge that includes, in part, a frame body made up of at least first and second frame bodies that are movable relative to each other to form a space in an open state and to close the space in a closed state. The process cartridge also includes a developing unit that is configured to be replaceable in the closed state via a space different than the space formed by the first and second frame bodies.

Applicants respectfully submit that Asano fails to teach or suggest each feature of independent Claim 1. For example, Asano fails to teach or suggest a developing unit that is configured to be replaceable. Asano describes an image forming apparatus having a detachable imaging cartridge 10 (e.g., process cartridge) that includes a photosensitive member charged by a charge brush, and a developing device 3.¹ According to Asano, at least one of the photosensitive member and the charging brush is detachable from the imaging cartridge,² and a photosensitive drum 1 is removably installed in a portion 102 of the cartridge 10.³ Further, Asano indicates that “the drum 1 makes contact with the developing sleeve 31 of the developing device 3.”⁴ However, Asano is silent regarding the developing device being removable or otherwise replaceable from the process cartridge, as recited in Claim 1.

Accordingly, Applicants respectfully submit that independent Claim 1 and claims depending therefrom patentably define over Asano.

Claim 23 is directed to a process cartridge that includes, in part, a frame body made up of at least a first frame body and a second frame body that are movable relative to each

¹ Asano at Abstract and Fig. 10.

² Asano at Abstract.

³ Asano at column 8, lines 22-23.

⁴ Asano at column 8, lines 41-43.

other to form a space, a latent image bearing member supported by the frame body and replaceable via the space formed by the first and second frame bodies, a replaceable developing unit positioned by only one of the first or second frame bodies, and a replaceable cleaning unit positioned by only one of the first or second frame bodies.

Thus, as Asano fails to teach or suggest a replaceable developing unit, Asano fails to teach or suggest “a developing unit supplying a toner to the latent image bearing member, configured to be replaceable from the process cartridge,” as recited in Claim 23.

Accordingly, Applicants respectfully submit that Claim 23 and claims depending therefrom also patentably define over Asano.

Claim 33 is directed to a process cartridge that includes, in part, a frame body made up of at least first and second frame bodies that are movable relative to each other to form a space in an open state and to close the space in a closed state. Further, the process cartridge includes a latent image bearing member supported by the frame body, and at least one process unit supported by the frame body and configured to be replaceable in the closed state via a space different than the space formed by the first and second frame bodies.

Asano also fails to teach or suggest each feature of Claim 33. For example, Asano fails to teach or suggest a process cartridge that includes at least one process unit that is configured to be replaceable in the closed state via a space different than a space formed by first and second frame bodies. As described above, Asano only indicates that at least one of the photosensitive member and the charging brush is detachable from the imaging cartridge,⁵ and a photosensitive drum 1 is removably installed in a portion 102 of the cartridge 10.⁶ However, according to Asano, the charging brush and the photosensitive drum are removable only in an open position.⁷ Accordingly, Applicants respectfully submit that Asano fails to teach or suggest “at least one process unit configured to be replaceable in the closed state via

⁵ Asano at Abstract.

⁶ Asano at column 8, lines 22-23.

⁷ Asano at Fig. 10 and column 8, lines 14-68.

a space different than the space formed by the first and second frame bodies,” as recited in Claim 33.

Accordingly, Applicants respectfully submit that independent Claim 33 and claims depending therefrom also patentably define over Asano.

Accordingly, Applicants respectfully request the rejection of Claims 1, 3, 6, 7, 28, 23, 25, 28, 29, 33-38, 41-43, 48, and 51 under 35 U.S.C. §102(b) be withdrawn.

Further, Applicants respectfully traverse the rejection of Claims 1, 3, 4, 6, 7, 21, 23, 25, 26, 28, 31-33, 35, 41, 42, and 51 under 35 U.S.C. §102(b) as anticipated by Hirabayashi, with respect to amended independent Claims 1, 23, 31, and 33.

Applicants respectfully submit that Hirabayashi fails to teach or suggest each of the features of independent Claims 1, 31, and 33. For example, Hirabayashi fails to teach or suggest process units that are replaceable via a space different than a space formed by first and second frame bodies. Hirabayashi Fig. 4 indicates that a side bracket 25A (e.g., second frame body) may be removed or moved away from a side bracket 24A (e.g., first frame body), and a developing unit 36 and a latent image bearing member 20 may be removed via the space created by the removal of side bracket 25A. Thus, according to Hirabayashi, each part of the process cartridge is removed in an open state via a space created by the movement or removal of side bracket 25A. Therefore, Hirabayashi fails to teach or suggest “a developing unit . . . configured to be replaceable in the closed state via a space different than the space formed by the first and second frame bodies,” as recited in Claim 1. In addition, Hirabayashi also fails to teach or suggest “one of the at least three process units is replaceable in the closed state via a space different than the space formed by the two process units,” as recited in Claim 31. Further, Hirabayashi also fails to teach or suggest “at least one process unit configured to be replaceable in the closed state via a space different than the space formed by the first and second frame bodies,” as recited in Claim 33.

Accordingly, Applicants respectfully submit that independent Claims 1, 31, and 33, and claims depending therefrom, patentably define over Hirabayashi.

Moreover, Applicants respectfully submit that Hirabayashi fails to teach or suggest each of the features of independent Claim 23. For example, Hirabayashi fails to teach or suggest first and second frame bodies that are movable relative to each other, and a replaceable developing unit and cleaning unit each positioned by only one of the first frame body or the second frame body. Hirabayashi indicates that a developing unit 36 and a cleaning unit 39 are each removable from a process cartridge, and each are positioned by pairs of protrusions 29a, 29b, 30a, 30b, 31a, 31b, 32a, 32b from both of brackets 24A and 25A (e.g., first and second frame bodies).⁸ Thus, Hirabayashi indicates that a developing unit and cleaning unit are positioned by both first and second frame bodies. Accordingly, Hirabayashi fails to teach or suggest “each of the developing unit and the cleaning unit is further configured to be positioned by only one of the first frame body or the second frame body,” as recited in Claim 23.

Accordingly, Applicants respectfully submit that independent Claim 23 and claims depending therefrom also patentably define over Hirabayashi.

Accordingly, Applicants respectfully request the rejection of Claims 1, 3, 4, 6, 7, 21, 23, 25, 26, 28, 31-33, 35, 41, 42, and 51 under 35 U.S.C. §102(b) be withdrawn.

In addition, Applicants respectfully traverse the rejection of Claims 31-33, 41, and 51 under 35 U.S.C. §102(b) as anticipated by Surti, with respect to amended independent Claims 31 and 33.

Applicants respectfully submit that Surti fails to teach or suggest each feature of independent Claims 31 and 33. For example, Surti fails to teach or suggest a latent image bearing member replaceable via a space formed by two process units that are movable

⁸ Hirabayashi at column 3, lines 10-14, and FIG. 3.

relative to each other, and a process unit that is replaceable in a closed state via a space different than that space.

Surti indicates that a corona discharger 20 (e.g., a first process unit) may be mounted on a cleaning housing 51 (e.g., a second process unit) “for removal from housing 8 along with the removal of the cleaning housing 51.”⁹ Further, Surti indicates that a cleaning device 26 (e.g., a second process unit) is mounted to the housing 51.¹⁰ Surti also indicates that members 52 and 54 (e.g., first frame body and second frame body) are disposed for removably supporting the development device 22, cleaning device 26, drum 16, and corona discharger 20. Thus, Surti indicates that to remove the process units, members 52 and 54 must be removed. Accordingly, Surti fails to teach or suggest “two of the at least three process units are movable relative to each other to form a space in an open state and to close the space in a closed state . . . and one of the at least three process units is replaceable in the closed state via a space different than the space formed by the two process units,” as recited in Claim 31, and Surti fails to teach or suggest “at least one process unit configured to be replaceable in the closed state via a space different than the space formed by the first and second frame bodies,” as recited in Claim 33.

Accordingly, Applicants respectfully submit that independent Claims 31 and 33, and claims depending therefrom, patentably define over Surti.

Accordingly, Applicants respectfully request the rejection of Claims 31-33, 41, and 51 under 35 U.S.C. §102(b) be withdrawn.

In addition, Applicants respectfully traverse the rejections under 35 U.S.C. § 103(a) of dependent claims as unpatentable over Asano, Hirabayashi, or Surti, in combination with Noda, Ebata, Kinoshita, Miyabe, Ojima, Yamashiro, Inoue, or Keen. Independent Claims 1, 23, 31, and 33 are believed to patentably define over Asano, Hirabayashi, and Surti, as

⁹ Surti at column 4, lines 55-63, and FIG. 14.

¹⁰ Surti at column 4, lines 19-20.

discussed above. In addition, Applicants respectfully submit that Noda, Ebata, Kinoshita, Miyabe, Ojima, Yamashiro, Inoue, and Keen, whether taken individually or in combination, fail to teach or suggest the claimed features lacking in the disclosures of Asano, Hirabayashi, and Surti.

Accordingly, Applicants respectfully request the rejections under 35 U.S.C. § 103(a) be withdrawn.

Therefore, Applicants respectfully submit that independent Claims 1, 23, 31, and 33, and claims depending therefrom, are allowable.

Consequently, in light of the above discussion and in view of the present amendment, the present application is believed to be in condition for allowance and an early and favorable action to that effect is respectfully requested.

Respectfully submitted,

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